

REVIEW ASSIGNMENT-PLEASE TRY THE FOLLOWING ON LOOSELEAF-PASS IN ON THE DAY OF THE TEST

Science 10

Study Guide: Chemistry Unit

Name: _____

1. Explain what WHMIS and HHPS are and what they are used for.
2. What are the different symbols for WHMIS and HHPS?
3. Explain the difference between a chemical change and a physical change. Give examples of each.
4. Where are metals found on the periodic table? Nonmetals? Metalloids? What about the families?
5. Describe the differences between protons, neutrons and electrons in terms of where they are found in the atom and what charge they have.
6. Draw a Bohr diagram for beryllium and chlorine.
7. What is an ion? How does an atom become an ion?
8. What arrangement of electrons does a stable ion have?
9. State the similarities and differences between ionic, polyatomic and molecular compounds.
10. Write the formulas for the ionic compounds formed by the following combination of elements:
 - a) Lithium and bromine
 - b) Calcium and bromine
 - c) Copper (I) bromide
 - d) Iron (II) sulfide
11. Write names for the following ionic compounds:
 - a) KCl
 - b) Na₃P
 - c) CaF₂
 - d) SnCl₂
 - e) PbBr₂
12. Write the names for the following polyatomic compounds:
 - a) sodium phosphate
 - b) beryllium nitrate
13. Write the names for the following polyatomic compounds:
 - a) K₂CO₃
 - b) Na₂SO₄
14. Write the formula for the molecular compounds formed by the pairs of elements.
 - a) sulfur trioxide
 - b) chlorine dioxide
 - c) methane
15. Write the names for the molecular compounds:
 - a) PBr₃
 - b) CS₂
 - c) H₂O
 - d) PCl₅
16. What is the Law of Conservation of Mass and what does it mean in terms of balancing an equation?
17. Balance each equation.
 - a) $\text{Ag}_2\text{O} \rightarrow \text{Ag} + \text{O}_2$
 - b) $\text{NaCl} + \text{F}_2 \rightarrow \text{NaF} + \text{Cl}_2$
 - c) $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$
 - d) $\text{Mg} + \text{AgNO}_3 \rightarrow \text{Ag} + \text{Mg}(\text{NO}_3)_2$
 - e) $\text{AsCl}_3 + \text{H}_2\text{S} \rightarrow \text{HCl} + \text{As}_2\text{S}_3$
 - f) $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
18. Write the balanced chemical equation for each of the following: (Do not forget about diatomic molecules!)
 - a) magnesium + nitrogen \rightarrow magnesium nitride
 - b) iron + water \rightarrow iron (III) oxide + hydrogen
 - c) dicarbon dihydride + oxygen \rightarrow carbon dioxide + water
19. Be able to define and understand the following:
 - a) Matter and its make up (pure substance, mixture, element, compound)
 - b) Multivalent metals
 - c) Oxyacids (aq)
 - d) Covalent bonds
 - e) Combining capacity
 - f) Diatomic molecules
 - g) acid –how to recognize
 - h) base-how to recognize
 - i) pH scale and strong and weak acid /strong and weak base
 - j) neutralization